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MONTANA OUTDOORS

Our Point of View

STEVEN AKRE

The bicentennial celebration of Lewis and Clark's journey has already begun in Montana. First came the release of Ken Burns' film, *The Corps of Discovery*, last fall. Now the Lewis and Clark Interpretive Center in Great Falls, perched on the bank of the Missouri River near Giant Springs, has opened for visitors (see page 2).

The Corps of Discovery expedition from 1804 to 1806 was unparalleled in importance to our young nation. It is a story of courage, adventure, and the strength of the human spirit. The journey was also immensely important from a scientific view. Their journals described fish, wildlife, and plants across this vast region and they continue to serve as a reference for scientists.

Some of these species, abundant 200 years ago, are once again the focus of our attention. For many of them, like the grizzly bear, lynx, sturgeon, wolf, Arctic grayling, swift fox, and cutthroat trout, Montana is the last stronghold in the lower 48 states.

A few have been listed under the federal Endangered Species Act, and others are under consideration. Ironically, even though a species may be doing well in Montana, it can still be listed because the act considers the status of a species across its entire range.

FWP has launched efforts in recent years to restore native species such as Arctic grayling and westslope cutthroat trout (see page 31). Some people ask, why? After all, non-native species like rainbow trout, brown trout, and walleyes, are often preferred sport fish. True, but native species represent a connection to our past and a sign that our world is still habitable despite the pressures of progress.

I do not believe any generation wants to be known for letting our treasured native species slip into extinction. This generation, to the contrary, has the opportunity to celebrate the 200th anniversary of the Corps of Discovery by sharing in restoration of our native cutthroat, grayling, and bull trout because it is the right thing to do.

Patrick J. Graham, Director
Montana Fish, Wildlife & Parks

NEAL & MARY JANE MISHLER

The Lewis and Clark Interpretive Center is the newest addition to Giant Springs Heritage State Park (page 2).

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A Blend of Past and

Lewis and Clark Interpretive Center

Present

by Bruce Auchly

DAVE MCGEE

The U.S. Forest Service's Lewis and Clark Interpretive Center gives a new look to Giant Springs Heritage State Park.

BRUCE AUCHLY

Jane Weber

From Jane Weber's office window overlooking the Missouri River near Great Falls, it's not hard to picture Meriwether Lewis in 1805 walking along the shore, watching for grizzly bears, bending to examine a plant unknown to the scientific world.

Cottonwoods, willows, and chokecherries still line the banks. Waterfowl continue to skim along the river inches above the waves. Mink, deer, and red fox persist in prowling the water's edge for a meal. In 200 years, little has changed—yet everything has changed—outside Weber's window.

Weber heads the new Lewis and Clark Interpretive Center, which officially opened in May of this year. The center, run by the U.S. Forest Service, sits inside Giant Springs Heritage State Park. Efforts to build the $6 million federal facility have been a blend of state and federal, private and public, past and present.

STEVE ELLIS

Missouri River

"It's the perfect spot," says Dan Smith, park operations specialist for Montana Fish, Wildlife & Parks (FWP) in Great Falls. "The state park could never have afforded to build an interpretive center like this."

And the state cannot afford to ignore the center, either. Weber hopes for 100,000 visitors during the center's first year. That's 100,000 visitors a quarter-mile from the door of FWP's Region 4 office, visitor center, and fish hatchery, which are also located inside Giant Springs State Park. That's 100,000 visitors added to the park's current visitation of 130,000 to 200,000.

NEAL & MARY JANE MISHLER

"The park can easily take more visitors," Smith says. "Where we will get into a jam is people will come away from the interpretive center and want the same level of programs and personal service in the park. And we don't have those."

Instead, Giant Springs offers open space with the city's River's Edge Trail running through it. "It's an urban park but it's loaded with open space," Smith says.

Outside of their winter camps, the Lewis and Clark Expedition spent more time in the Great Falls area, portaging around the falls, than in any other location during their two-year peregrination. Although dams have altered the river's flow and waterfalls (the park lies between Black Eagle and Rainbow dams), Giant Springs remains identifiable with the expedition. Most other campsites are on private land or not readily accessible. The result is a natural tie between the expedition and the state park. That led a citizens' committee 10 years ago to select Giant Springs as the site of a Lewis and Clark center national in scope.

Weber, a 20-year Forest Service veteran, was on that committee along with representatives from FWP, the Giant Springs Heritage Park Commission, the Audubon Society, the Portage Route Chapter of the Lewis and Clark Trail Heritage Foundation, and the Great Falls Native American community. The committee focused on two criteria: a view of the river and the ability to keep traffic flowing.

After the site was chosen, an architect drew up plans for a $9.5 million center. Congress finally agreed in 1994 to help fund the center, but put a $6 million cap on the project. With $3.5 million less than planned, the center's original design was slashed, including a plan to move Giant Springs Road. "Everything got reduced," Weber recalls. "Our 10,000-square-foot exhibit hall went down to 5,500 square feet."

Although Congress approved the center, it said only half the money would be from federal funds. Great Falls would have to raise the other half. Enter the private sector in the

STEVEN AKRE

BRUCE AUCHLY

Opposite Page: *Interpretive panels along the Missouri River give facts on Lewis and Clark history and the river's natural features. Because it remains identifiable with the Lewis and Clark Expedition, Giant Springs is a perfect site for the new interpretive center.*

Left: *Interpretive center displays emphasize the people Lewis and Clark Expedition members met along the way. This exhibit demonstrates the difficulty the explorers faced when communicating through interpreters in several languages.*

form of the Lewis and Clark Interpretive Center Fund, Inc. Working corporate coffers, private citizens, and local governments, the group came up with the necessary $3 million. Ground breaking took place August 16, 1996, and late in 1997 Swank Construction of Valier officially handed the building over to the Forest Service. Weber, 44, was chosen as center director.

The center's theme is Lewis and Clark among the Indians. "We actually tell the whole story," Weber says, "but we've compressed the beginning and ending parts of the story."

There are nearly a dozen Lewis and Clark museums along the expedition's route from St. Louis to the Oregon Coast. Weber ticks off exhibits in Missouri, Iowa, Kansas, North Dakota, and "several" in Washington and Oregon.

"We concentrated on the uncharted lands beyond the Mandan and Hidatsa people," Weber says, referring to the Indian tribes in North Dakota where the expedition spent their first winter, "where the map of the North American continent lacked information. We call it the hole in the doughnut, and Clark's map filled that gap with new and detailed information."

The exhibits in the Great Falls center have a heavy emphasis on the people the expedition met on the way. The exhibits are also interactive. Visitors can touch a replica of Sgt. Floyd's gravestone—the only expedition member who died on the journey. There are ropes attached to a boat exhibit where visitors can discover what it was like to pull a boat against the Missouri River current. One display demonstrates the difficulty the explorers faced translating through four languages and five interpreters when bartering for horses.

Educational programs will come next year. "We want to provide a menu of activities focusing on different educational aspects of the expedition," Weber says. "With changing programs, teachers will have reason to bring their students more than once." Programs could include making baskets or identifying flora and fauna recorded by Lewis. Weber also envisions evening seminars and college level courses, some with the help of FWP. "For example, people are going to want bird walks," Weber says. "FWP is better equipped to provide this kind of interpretive program."

The opening of the interpretive center changes educational efforts at Giant Springs, Smith acknowledges. In the past, FWP volunteers found themselves regularly discussing the expedition with visitors at the department's regional visitor center. In addition, there is the Lewis and Clark Honor Guard, a volunteer group that dresses in period clothing and assumes identities of expedition members. Smith estimates the Honor Guard made 25 to 30 appearances last year.

"In the past our volunteers have done lots of Lewis and Clark living history type programs," Smith says. Next year most of the Honor Guard and other educational programs dealing with aspects of the expedition and the Indians will

switch to the interpretive center.

"We'll go back to talking about the natural world," he says of FWP's efforts. To that end the center, park, and city are cooperating on a 1.25-mile Lewis and Clark Natural History Walk along the river, starting downstream of Black Eagle Dam and running alongside the center to Giant Springs Fish Hatchery. The trail budget is $236,000 and will include interpretive panels explaining the riverine habitat.

"One thing the center has done for the park is raise the educational bar," Smith says, listing as evidence new exhibits in the hatchery visitor center, the nature walk, and new interpretive panels along the River's Edge Trail.

ALAN G. NELSON

BRUCE AUCHLY

BRUCE AUCHLY

NEAL & MARY JANE MISHLER

Portage displays, wildlife mounts, and interactive panels help visitors identify with challenges faced by the Corps of Discovery.

Both Smith and Weber stress the need for partnership between the state and federal facilities. Smith refers to the cooperation as "seamless management." Weber agrees: "People don't really care when they've stepped onto land leased to the Forest Service. It's all a park, Giant Springs State Park."

Other partners in the park scheme are Giant Springs Hatchery and River's Edge Trail. The latter already brings visitors by foot and bicycle from Great Falls to the park; the former will likely see more visitors stopping by to look at the 1.2 million fish that go through the hatchery each year.

"The center won't affect what we do," says Bruce Cheney, Giant Springs Hatchery manager. "FWP's volunteers do at least 90 percent of our tours. Unless they are deluged to the point where we have to start doing more tours, it's not going to affect our outcome." The hatchery's outcome is raising and stocking one million rainbows and 200,000 kokanee salmon annually.

As for the rest of the park, FWP will continue to be in charge, Smith adds. "We have one real big special event: the Lewis and Clark Festival, and FWP will continue to host that."

FWP will also focus on the park's more recent history; for example, the remains of a silver smelter and foundations from the homestead era dot the park. One foundation lies near the start of the proposed nature walk along the river. "There have been numerous homes in the park in the past," Smith says.

And in the future there will always be people who want to continue picnicking near the springs or hold wedding receptions, family reunions, or graduation gatherings in the park's heritage section.

"It's real nice to have a very natural park this close to town," Smith says. ■

A WILDLIFE VIEWING TOUR GUIDE

THE BIG HOLE

by Deborah Richie

DENVER BRYAN

Big Hole River

ARCTIC GRAYLING SHIMMER in the depths of the upper Big Hole River. Where once the native grayling swam the entire upper Missouri River system, today they find refuge only here. Otters slip off the banks to merge with the currents. Moose materialize from the willows. A salmonfly hatch in June attracts anglers in droves to one of the premier trout-fishing streams in America.

PAUL UPDIKE

Salmonfly

To best appreciate the cycles of seasons and wildlife along the Big Hole and Wise rivers featured in this viewing tour, heed the advice of George Grant, life-long angler and advocate for the Big Hole: "It takes time to learn to enjoy the sights, the sense, and the sounds of a trout stream. It is best to fish alone, to meander like the stream. It is not a place for loud conversation, competition, concern about meeting a deadline. The angler's pace is leisurely and there is time to appreciate the beauty of his surroundings."

PAUL UPDIKE

Arctic grayling

If you slow down enough, it's possible to imagine the river whispering stories of the previous century. Bison herds once churned its waters. Parties of Nez Perce and Salish people camped along its banks on their way to the plains. Captain William Clark returned through the Big Hole Valley in 1805, commenting on the river's abundant beaver, otter, and muskrat.

Today, the harsh climate of the 6,000-foot-high valley framed on three sides by the Continental Divide has helped to retain an open landscape. Cattle ranchers weather the fifty-below streches of winter alongside rough-legged hawks perched on jack-leg fences.

A three-day auto loop from Anaconda is enough to sample the wildlife treasures of the rivers, streams, and lakes. Covering 220 miles, the tour crosses the Continental Divide at Mt. Haggin and traces the Big Hole River upstream to the west, then south past Wisdom and Jackson (don't miss the hot springs) in the shadow of the Bitterroot Range. Next, climb 7,360-foot Big Hole Pass for a breathtaking view of the East Pioneers. From there, follow the Pioneer Mountains National Scenic Byway 44 miles north past Elkhorn Hot Springs, along Grasshopper Creek and the Wise River, to the junction with the Big Hole River. The scenic byway features national park-caliber roads, turnouts, and a series of interpretive signs. The loop lassoes to a close on the same road past Mt. Haggin.

DONNIE SEXTON

Wise River

THE BIG HOLE TOUR ROUTE

TOUR LENGTH/TIME
220 miles/ 3 days

SEASONAL HIGHLIGHTS

Spring: Dippers build their mossy, ball-shaped nests next to rushing streams; antelope drop fawns in May-June; mountain bluebirds return in large flocks; rough-legged hawks head north, while red-tailed hawks move in from the south; ground squirrels pop up from winter hibernation.

Summer: Salmonflies hatch in June; butterflies sip from wildflowers; golden eagles hunt for small mammals over prairies; bald eagles fish in the rivers; migratory songbirds nest and raise young.

Fall: Elk bugle on Mt. Haggin; aspen and cottonwood leaves turn gold; beavers stockpile twigs for the winter; Clark's nutcrackers cache pine seeds.

Winter: Rough-legged hawks perch on fenceposts and telephone poles; moose forage in willow bottoms; river otters leave trough-like tracks in snow by water's edge; great gray owls plunge into snow to capture rodents.

MEANDERS ON MT. HAGGIN WMA

DONNIE SEXTON

Mule Ranch Vista

Twenty-eight streams flow from both sides of the Continental Divide through Mt. Haggin Wildlife Management Area (WMA), nourishing the waters of the Missouri and Columbia. To best appreciate the Big Hole, start your wildlife viewing journey here, high above the valley at the source of streams that feed the trout-laden waters. Mt. Haggin's rambling 51,151 acres feature grasslands, aspen groves, willow-lined creeks, and lodgepole pine forests. After FWP acquired Mt. Haggin in 1976, biologists worked hard to restore grasses and willows after years of heavy, season-long cattle grazing. Today, cattle graze only parts of the WMA at a time. Wildlife viewers benefit from the more than 50

antelope that moved into the area in the 1980s and the greater sandhill cranes that nest in wet meadows.

Take your time driving Highway 274 (Mill Creek Road) through the WMA and scan for elk, deer, moose, coyotes, an occasional black bear, hawks, and eagles. Mt. Haggin offers excellent mountain biking and hiking in the summer and cross-country ski trails in winter. Portions of the WMA are closed to motorized vehicles from December 1 through May 15 to protect elk and deer.

For a taste of the WMA's interior, try Dry Creek Road (Forest Road 2483) on the west side of highway, past the divide. The well-maintained dirt road offers breathtaking views of both the Pintler and Pioneer mountains. In July, lupine, penstemon, and bistort wildflowers pepper the high meadows. Moose, mink, and muskrat feed in beaver-dammed streams. Purple camas and buttercups illuminate wet meadows. Mountain bluebirds take flight over the grasslands, while white-crowned sparrows and red-naped sapsuckers seek out aspen stands. Chickadees and chipping sparrows sing from the lodgepole pine forests. Day ends with the ascending music of snipe and nighthawks in aerial pursuit of insects.

DONALD M. JONES

Beaver

Stop, too, at Mule Ranch Vista on the south end of the WMA (off Mill Creek Road) for an interpretive overview. The weathered buildings bear testimony to the days when this land served as the Anaconda Company's resting place for mules that labored under huge loads of ore from the Butte mines. Today, you might see antelope and prairie falcons both racing the winds.

RAPTOR RAPTURE BY STEEL CREEK

Golden eagles, northern harriers, red-tailed hawks, and kestrels all frequent the environs of the Steel Creek ranger cabin. Take the Steel Creek Road a half mile north of Wisdom on Highway 43. Drive six miles east across sagebrush flats to the cabin, and beyond to a forested campground. Yellow-headed blackbirds serenade from wetlands created by beaver dams on the willow-lined creek. In July, look for flocks of butterflies called "blues" that gather to sip minerals from damp spots on the road. A hiking trail leads from the campground into the Pioneer Mountains, following a rushing Steel Creek for a ways. Stroll through the campground or up the trail to spot red-breasted nuthatches, dark-eyed juncos, Clark's nutcrackers, and gray jays.

DONALD M. JONES

Red-tailed hawk

TAKE NOTE OF THE SEASON AND GUESS WHETHER THE ANIMAL WILL BE SHOPPING FOR A MATE, FEATHERING ITS NEST, FATTENING FOR WINTER, OR PREPARING TO MIGRATE.
MOUNTAIN BLUEBIRD BY DONALD M. JONES

IMAGINE HOW THE ANIMAL YOU ARE SEEKING SPENDS ITS DAYS. CHECK FIELD GUIDES TO FIND OUT ABOUT LIFE HISTORY AND PREFERRED HABITATS.
MOOSE
BY JOHN R. FORD

TURNING BACK THE CLOCK AT BIG HOLE NATIONAL BATTLEFIELD

CHUCK HANEY

Big Hole National Battlefield

The Salish named this favorite camp Izhkumzizlakik Pah (place of the "picket pin," defined simply as an animal smaller than a ground squirrel). In 1877, the Nez Perce fleeing the U.S. Army rested at last, digging camas roots by the North Fork of the Big Hole and cutting new tipi poles. Children played by the grassy streambank. At daybreak of August 9, military forces attacked them while they slept. Between 60 and 90 Nez Perce men, women, and children were killed. In the day's battle, 28 soldiers and civilian volunteers died.

Today's memorial to that tragedy preserves the landscape and its wild inhabitants. Moose roam the willow bottoms. Beaver dams create pools for trout. Elk may step from the shadows of lodgepole pine into verdant hillside meadows. In summer and fall along the trail to the Nez Perce campsite, listen and watch for warbling vireos, northern waterthrushes, MacGillivray's warblers, common yellowthroats, red-winged blackbirds, and western wood peewees. Leaving the river, another trail ascends to forests harboring pine siskins, Cassin's finches, and Clark's nutcrackers.

The National Park Service maintains the national battlefield, located 10 miles west of Wisdom on Highway 43. It's open year-round, in summer from 8:00 a.m. to 6:00 p.m., and in winter from 9:00 a.m. to 5:00 p.m., with closures on November 24, December 25, and January 1.

TIM EGAN

Upper Miner Lake

WILDLIFE LODGING AT MINER LAKE

At least two species of wildlife depend on Miner Lake for a homesite. Beavers maintain a lofty lodge and red-necked grebes weave floating nests. A pair of Beaverhead National Forest signs interpret the local inhabitants. Just a half-mile south of Jackson, turn right at the Miner Lakes sign. Follow the gravel road across sagebrush flats pocked by ground squirrel holes and badger dens. Miner Lake is 11.5 miles in at an elevation of 7,000 feet. In the shadow of the Continental Divide, the 57-acre lake shelters mostly brook trout with some cutthroat, grayling, and whitefish. Consider staying at the campground to appreciate wildlife at dawn and dusk when they are most visible. The lake is closed to gas-powered motor boats. A trail leads to Upper Miner Lakes.

BARBARA THOMAS

Pioneer Mountains

THE BIG PICTURE FROM GRASSHOPPER VALLEY OVERLOOK

The Pioneer Mountains National Scenic Byway ascends from Grasshopper Valley past Montana's smallest saloon, the Polar Bar in Polaris. You'll see Maverick Ski Area and Elkhorn Hor Springs before pausing at the overlook. Gazing across the valley to the East Pioneer Range, it's easy to visualize Shoshoni people gathering camas for root cakes as they did for centuries. Lewis and Clark named the stream Willard Creek, after expedition member Alexander Willard. A wildlife species triumphed in this case, when locals about a century ago renamed it Grasshopper Creek, probably in disgust after a flourish of grasshoppers descended one season. Today, watch for mule deer and elk near the forest edges and hawks and eagles spiraling above the valley floor.

NATURE RECLAIMS COOLIDGE GHOST TOWN

Combine wildlife viewing with a slice of history at Coolidge Ghost Town. The crumbling log structures that housed miners and their families in the early 1900s now belong to wild denizens. A coyote might peer into a low-slung doorway, or bats may take flight from beneath the eaves. Across the Wise River Divide, drive five miles on Forest Road 2465 to the mine trailhead. Both mule deer and mosquitoes frequent the picnic area. Along the quarter-mile, level path leading to the ghost town and Lower Elkhorn Mine, watch for red crossbills, ruby-crowned kinglets, golden-crowned kinglets, and pine grosbeaks. Dippers fly low along the rushing creek. Visitors stay briefly and leave the forest to black bears, deer, owls, and pine squirrels. But at the peak of the silver mine's life in the 1920s, Coolidge bustled with activity. A narrow-gauge railway ran from here along the Wise River to the junction with the Big Hole River and downstream all the way to Divide. The mine closed in the 1930s when silver prices dropped.

DONNIE SEXTON

Coolidge Ghost Town

JOHN R. FORD

Mule deer

THE BORDER BETWEEN TWO HABITATS IS A GOOD PLACE TO SEE WILD RESIDENTS OF BOTH PLACES.

COYOTE
BY JOHN R. FORD

CELEBRATE A WILDFLOWER ON THE STEM, NOT IN THE HAND. STAY ON TRAILS, WALK WITH A CAREFUL STEP, AND FLOWERS WILL FLOURISH.
CAMAS FLOWER
BY SCOTT WHEELER

RIPARIAN WEALTH AT GRAND VISTA

SCOTT WHEELER

Grand Vista

Along the Wise River in July, purple camas blaze, mosquitoes buzz, cattle graze by day, and elk venture into clearings at dusk and dawn. Grand Vista lives up to its name as a dramatic overlook upon the winding Wise River with the East Pioneer Mountains rising sharply in the distance. Once you leave the paved parking area, you can sit on the hillside and absorb both the view and the richness of the riparian community—the association of plants and animals that live along the stream. This stretch of Wise River harbors a particularly lush, healthy riparian area where fish hide in the shade of overhanging willows. Roots lace the banks together, preventing erosion. From warblers to water shrews, nearly three-quarters of all Montana's wild animals rely on riparian areas. The turnoff to Grand Vista is a quarter-mile north of Little Joe Campground, one of five developed campgrounds on the Wise River.

FOR MORE INFORMATION ON LODGING, CAMPING, AND VIEWING AREAS:

Gold West Country: 406-846-1943.

Mt. Haggin Wildlife Management Area: 406-994-4042.

Big Hole National Battlefield: 406-689-3155.

Beaverhead-Deerlodge National Forest: 406-683-3900.

Wisdom Ranger District: 406-689-3243.

Wise River Ranger District: 406-832-3178.

New Life for Old Ways in the Booming Bitterroot

by MIKE THOMPSON

PAUL UPDIKE

MIKE THOMPSON

"Hello, Mike Thompson? This is Virginia Brown calling." I hadn't met Mrs. Brown, and she surprised me with her call, but I guessed what was on her mind.

A few months earlier, I had mailed an introductory note to her husband, Wallace, asking him to consider selling a conservation easement on his Brown Valley Ranch to Montana Fish, Wildlife & Parks (FWP), his neighbor to the east. I really hadn't expected him to reply because we didn't know each other and I thought he might file my letter along with countless other blind solicitations. You could have knocked me over with a feather when Mr. Brown appeared in my office. He left me with the impression that he would seriously consider a conservation easement to protect wildlife habitat on his ranch in the Bitterroot Valley. Soon after, I read his obituary in the local newspaper.

BROWN VALLEY, BOLIN, AND LEWIS CONSERVATION EASEMENTS

Before I met Virginia Brown, I believed that FWP's conservation easement program was about preserving wildlife habitat on private land. That it was about identifying strategically important ecosystems and establishing legal barriers that could be defended forever against housing developments and shopping malls. That it was a strategy, as in our management plan for Threemile Wildlife Management Area (WMA), to maintain open space on neighboring ranches as a buffer against future housing encroachments that might threaten the WMA itself.

MIKE THOMPSON

The Brown Valley easement honors the wishes of the late Wallace Brown by keeping the family ranch intact and protecting it against subdivision and development.

When Virginia called in December of 1993, I learned that a conservation easement is not only about wildlife. It is about people. In the case of the Brown Valley Conservation Easement, it is about a family with a proud heritage and strong land ethic, who wanted to keep their ranch together in the face of overwhelming tax disincentives and other obstacles. They wanted to carry out Wallace Brown's wishes, which were partially preserved in the file Virginia found after her husband's death, and which prompted her to phone me. On December 15, 1995, after two years of careful negotiations, FWP purchased a perpetual conservation easement on 1,800 acres of the Brown Valley Ranch, and accepted the gift of a portion of the appraised easement value in memory of Wallace B. Brown.

It is about people like John Grove, who spoke at a public hearing before Montana's Fish, Wildlife & Parks Commission to support the easement. Mr. Grove spoke on behalf of the Ravalli County Fish and Wildlife Association, one of the oldest grassroots citizens' conservation organizations in Montana.

"Virginia Brown, her daughters and son, and [FWP] all deserve the heartfelt thanks of all Montanans for bringing the proposed Brown Valley Conservation Easement to this point," John Grove said. "As rapid growth and rampant subdivision engulf the foothills of our valley, the wintering areas for wildlife are shrinking. Not only is [elk] winter range diminishing, but there are more harassment and poaching of wildlife from a growing human population. This [conservation easement] will provide much needed security, protection, and the necessary wintering habitat for wildlife in the Threemile and Ambrose Creek drainages."

It was an evening when FWP's program of acquiring conservation easements on private lands, and its management vision for Threemile WMA, were resoundingly reaffirmed by an appreciative local community. But, the most gratifying comment was scrawled on a crumpled scrap of paper that was passed through the audience from Bessie Bolin. As I recall, it read, "Mr. Thompson. How can we be considered for a conservation easement on our ranch?"

Nineteen months later, the Bolin Conservation Easement became a reality. While the Brown Valley easement expanded FWP's management influence downslope from Threemile WMA to include more grassland winter range for elk along the base of the Sapphire Mountains, the Bolin Conservation Easement virtually duplicated the WMA where grasslands give way to forests on the upper foothills and lower mountain slopes. With provisions for compatible management of rangelands, timber, and public access across 5,204 adjacent acres, the Bolin easement effectively doubled the size of Threemile WMA, while leaving the Bolin Ranch in private ownership.

"To me, this is one of the things that House Bill 526, that Habitat Montana, was really all about," declared Ira Holt, referring to the act of the 1987 Montana Legislature and the FWP administrative program that together enable FWP's acquisition of important wildlife habitats. Ira testified at the hearing for the Bolin easement in his capacity as chairman of the Habitat Montana Committee for the Montana Wildlife Federation. "There was a line drawn some five years ago around the Threemile WMA, proposing a [buffer] area be protected," he said. "The Bolin Conservation Easement would secure [over] half of that buffer area, and is a natural accompaniment to the WMA."

The Ravalli County Board of County Commissioners captured the concept best when they wrote, "The current and future property owners can continue the ranch operation, the public will benefit from the wildlife opportunities that will result, the county tax base will not be negatively affected, and we will not be faced with undesirable development proposals on these

JAMES J. JONKEL

The Bolin easement, adjacent to Threemile WMA, provides winter range for deer and elk and hunting opportunities for the public.

properties. We especially like the feature in the Bolin easement that provides for public access and compatible recreation."

Public access was not necessary to achieve FWP objectives on the Brown Valley Ranch, and was not provided by the Brown Valley easement. However, FWP managers recognized the importance of preserving public hunting opportunities on the Bolin Ranch, where habitats support elk, mule deer, white-tailed deer, black bear, and mountain grouse year-round. But, how can public access be guaranteed while protecting private property rights in the face of the highest rate of human population growth in Montana? Should all future owners be doomed to endure countless phone calls and drop-in visits from hunters, at all hours of the day or night, from the opening of archery season in September to the end of the general big game season in November? How could FWP ensure that others besides family and close friends would be allowed fair access?

JAMES J. JONKEL

The public can access the Bolin easement for hunting and wildlife viewing from two designated parking areas, each with a three-vehicle limit.

FWP and the Bolins tested their solution in the fall of 1997. We established two public parking areas on easement lands along Ambrose Creek Road, and FWP erected parking stalls for a maximum of three vehicles at each parking area. Walk-in access was allowed to anyone with a vehicle legally parked in one of the parking areas. When parking areas were full of vehicles, further access was denied until a parking space opened. These rules were intended to limit recreational use to levels that would meet the needs of the landowners and the public on this private property, and they eliminated the need for recreationists to find and contact the landowners for permission. It worked well in 1997, judging from public compliance rates and favorable comments FWP received.

The Bolin family also generously granted walk-in access to the public from these parking areas during the summer months, to allow hiking and wildlife viewing. The easement area is closed to the public during winter and spring to allow big game undisturbed access to the winter range.

Hunters who drove to the Bolin parking areas last fall may not have noticed when they passed the Lewis Conservation Easement, the third property that FWP recently secured next to Threemile WMA. Nevertheless, the Brown Valley, Bolin, and Lewis lands are intertwined, as are the lives of their owners. At 155 acres, the Lewis easement is the smallest, but provides important habitat continuity across the elk winter range and along Ambrose Creek.

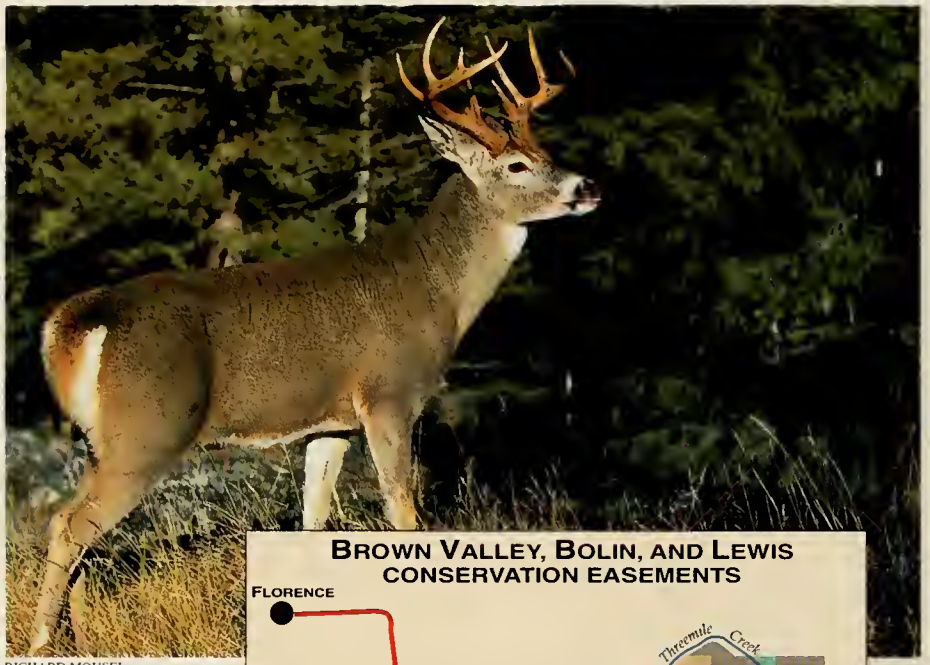
Dianne Lewis granted a conservation easement on her ranch under much the same unfortunate circumstances that Virginia Brown faced before her. The Lewis Ranch had been in the family since the early 1900s, and when Dianne's husband, Francis, died it was Virginia Brown who shared her experiences about conservation easements with Dianne. The conservation easement was a way for Dianne to fulfill her husband's wishes that the ranch remain as they had known it together. Her Aunt Bessie Bolin also supported Dianne throughout the process, including attending the closing ceremony for the Lewis Conservation Easement on July 23, 1997.

Together, Threemile WMA and the Brown Valley, Bolin, and Lewis conservation easements protect more than 13,000 acres of elk winter habitat across the foothills of the Sapphire Mountains, adjoining the Bitterroot National Forest along 10 miles of common boundary. Partnership involving these neighbors is nothing new. The Brown, Bolin, and Lewis families have been partners in the management of Threemile WMA and the local elk population for over 30 years. Wallace and Virginia Brown sold part of their ranch to FWP in 1967 to establish Threemile WMA. FWP worked with the Bolin and Lewis families on game damage issues over the years. Ernie Bolin and FWP cooperated on a rest-rotation grazing system for Ernie's cattle in the mid-1990s, which included a pasture on Threemile WMA. In effect, the conservation easements change nothing. Isn't that the point?

Virginia Brown and I still talk on the phone and meet at her ranch periodically to monitor compliance with the easement terms we agreed to. During a recent conversation, it warmed me when she said that she would still decide to grant the conservation easement if given the choice again today. She still believes that the conservation easement was the right thing for her to do, despite legal costs, stress, and difficult decisions. Her thoughts very strongly imply that she trusts people working for FWP to

MIKE THOMPSON

The 155-acre Lewis easement (above), together with the Brown Valley and Bolin easements, protects more than 7,000 acres of elk winter habitat along the foothills of the Sapphire Mountains.

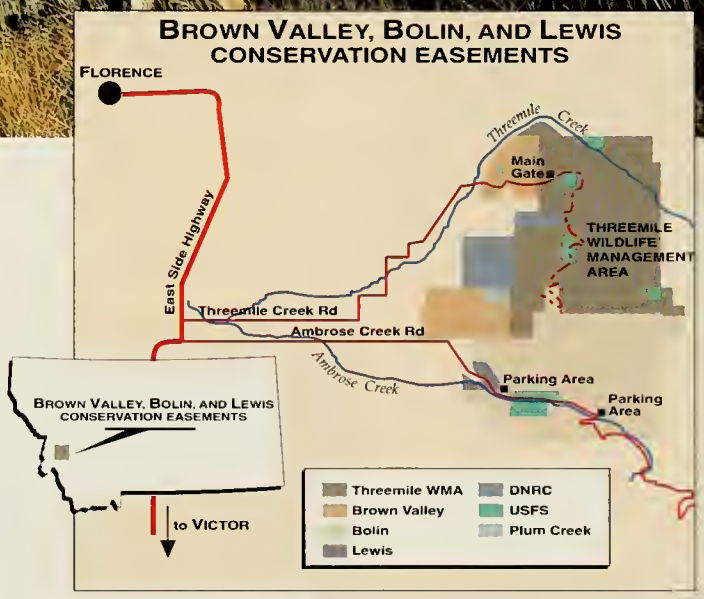


RICHARD MOUSEL

monitor and enforce her will on the land, long after she and I are both gone.

When all is said and done, these conservation easements are not a matter of biological science, although scientific assessments are applied. They are about the most personal matters of people. The Brown Valley, Bolin, and Lewis conservation easements arose from something deep within the landowners who granted them, the neighbors who stood up and were counted in support, and the thousands of strangers who carried and continue to defend the enabling legislation and policies. These conservation easements are testaments to the common values of people who came before us, those who are with us now, and others who will inherit what we leave behind. They are what I will remember most fondly about being a wildlife biologist. ■

Brown Valley, Bolin, and Lewis Easements



Location: Three Mile Creek and Ambrose Creek in Ravalli County, on the east side of the Bitterroot Valley between the Sapphire Divide and Highway 93.

Size: Brown Valley easement—1,800 acres; Bolin easement—5,204 acres; Lewis easement—155 acres.

Acquisition dates: 1995 (Brown Valley) and 1997 (Bolin and Lewis).

Access: Access is from the East Side Highway, north of Stevensville, along Ambrose Creek Road (see map).

Management goal: To conserve and protect in perpetuity wildlife habitat on private land by prohibiting residential, commercial, or industrial developments, while allowing for continued ranching and agricultural practices. Secondarily, to provide public access on the Bolin easement.

Hunting opportunities: The Bolin easement guarantees public access for hunting and wildlife viewing. Currently, access is by foot only from either of two designated parking areas along Ambrose Creek Road, and is allowed from June 15 through December 1. Space is provided for a maximum of three vehicles at each parking area. When parking areas are full, additional access is precluded. Archery and rifle/shotgun seasons for elk, mule deer, white-tailed deer, black bear, and mountain grouse are open to licensed hunters. Call FWP at 406-542-5500 for a brochure on public access regulations. Public access was not granted with the Brown Valley and Lewis easements. Access remains at the discretion of the landowners.

Wildlife Viewing: The Bolin easement allows public access for wildlife viewing during summer as well as during hunting season, according to regulations above (under "Hunting opportunities"). This area is closed to the public from December 2 through June 14 to allow elk and deer undisturbed access to important winter and spring habitats. Elk, mule deer, white-tailed deer, black bears, and coyotes may be observed year-round. Numerous species of birds and small mammals are found near Ambrose Creek, and along the ponderosa pine forest and grassland ecotone. Although public access was not granted with the Brown Valley and Lewis easements, opportunities for the public to view elk, deer, and raptors from public roads are enhanced by landscapes managed under these easements, which are within view of the Ambrose and Three Mile roads.

Oiling the Gate Latches

Building Better Landowner/Sportsman Relationships

FWP PHOTO

by Alan Charles

A ribbon of red scoria leads straight off the county road up to a cluster of ranch buildings nestled in a grove of towering cottonwoods. The overhead sign proclaims this the "Lazy J Five Ranch," while A.L. Nelson is painted on the mailbox. No orange paint smears gateposts, and no signs bark "No Trespassing," but still, the driver hesitates before turning down the lane.

"Do you suppose this guy is any friendlier than his neighbor?" George asked his hunting partner. "That last guy acted like we were Martians trying to take over the ranch."

"Yeah, I know. And the fellow farther back toward Circle acted like he was mad we even stopped to ask if we could hunt. I guess we could have just gone ahead and hunted that one section of BLM, but there were already two other cars there, and besides, the best deer country was all up in the hills on private land."

George shook his head. "It's frustrating, I know, landowners are all different, and I'm sure they get all sorts of kooks asking to hunt. But if they only knew *we're* okay, we're the kind of hunters who obey the rules and respect the land. If we could only get them to give us a chance...."

At the ranchhouse, Albert and Linda Nelson sat on the porch swing and watched the truck turn into the lane. "What do you think, Al, more hunters?"

Albert nodded, watching as the truck started toward the ranchhouse. "I suppose so. It's Saturday, second week of the deer season. Been eight truckloads today. The only ones that called ahead were that bunch from Minnesota, Joe Johnson, the auto mechanic from Minneapolis and that crazy Swede he hunts with every year."

"Well, I hope these guys are a little nicer than that last bunch. I couldn't believe my ears when they told me they weren't about to park and walk, that it was their *right* to drive around our pastures, even when I explained about the problems we've had with knapweed and spurge. And I got so darned mad when I found out they'd already shot up that last little bunch of sage chickens we've had hanging around the alfalfa bottoms...why, I just flat ran them off."

Albert shook his head. "I know. It's kind of frustrating. There are all sorts of hunters, some of them good, some of them not so good. I just wish we could get to know them before they showed up on our doorstep. It sure would be easier to send them out in the pastures if we only knew just what kind of folks they are."

The truck eased up and stopped in front of the ranchhouse. After a moment, the driver stepped out and looked up toward the house. Albert sighed and stood up, slowly walking down the steps.

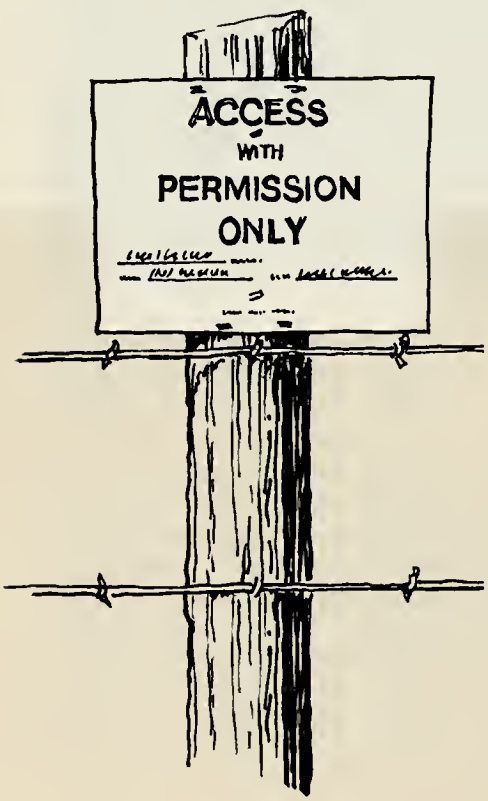
All across Montana, this scene plays throughout the year with endless variations. The one common theme is that owners of private land are continually approached by members of the public who wish to use private land for various forms of recreation. The key to success, for recreationists, is to try to build relationships with landowners by establishing trust and familiarity long before they ever ask permission to hunt, fish, or hike.

I know, in today's busy world there never seems to be enough time to do that sort of thing. There are always other activities, so that when hunting season comes it's time to go hunting, or when the fish are biting, there's only time enough to go fishing.

But I'd venture to say that if something is enough of a priority there is always time to do it. And perhaps now, more than at any other time in Montana's history, taking time to build relationships with private landowners ought to be a very, very high priority for recreationists.

As Missoula writer William Kittridge observed, "Agriculture is often envisioned as an art, and it can be. Of course there is always survival, and bank notes, and all that. But your basic bottom line on the farm is again and again some notion of how life should be lived. The majority of agricultural people, if you press them hard enough, even though most of them despise sentimental abstractions, will admit they are trying to create a good place, and to live as part of that goodness, in the kind of connection which with fine reason we call *rootedness*."

In recent years, as I've taught hunter education classes to mostly youngsters aged 11 and 12, I've often asked them, "Why might a landowner not want to give someone permission to hunt or fish on private land?"



POINTS TO REMEMBER

- A personal visit to the landowner is usually more effective than a phone call.
- Avoid early morning and late evening visits or phone calls.
- Introduce yourself.
- Drive only on roads and trails the landowner designates. If unsure, do not drive farther.
- When access is granted, be sure you know where you can and can't go, and what the ranch rules are.
- If you are denied access, thank the landowner for his time. Respect the landowner's right to say "no."
- Report any damage to fences, equipment, or livestock.

The neat thing about kids is that they're honest, and bright, and not afraid to say what they think. Among the answers they've given are:

"He probably doesn't know the people and isn't sure they'll take care of the land."

"Maybe he has other people coming out and doesn't have enough room."

"He's had bad experiences and doesn't want it to happen again."

"He wants to save it for his own family and his friends."

"He's busy and doesn't want to be interrupted when he's working."

"He's afraid somebody might get hurt and he'll get sued."

"He doesn't like hunting, or doesn't want to see the animals killed."

"He's leased his land to an outfitter or other hunters."

In class we go on then, and I try to get the students to develop ideas about what they might do to change the landowner's mind. As I said, kids are smart, and invariably the first things they say are, "You should try to get to know the landowner, and show him that you're okay and can be trusted. If he knows you and thinks you're a friend he'll probably want to let you on his land."

So, if kids can figure it out before they're even old enough to buy a hunting license, why can't we, as adults, seem to bounce up out of the ruts and get onto the road that leads to easy access?

FWP PHOTO

Access to private land is a privilege, not a right. Sportsmen can establish trust and familiarity prior to hunting season by pitching in to feed livestock, move salt blocks, or stack hay bales.

Sure, we've got all these pressures of daily life. And time is short. But some folks have taken the time and tried some things that might just work for you. Here are some examples of group efforts directed toward improving the relationships between landowners and recreationists:

• The Montana Bowhunters Association (MBA) provides metal gatelatches, fence walkovers, and signs to landowners who provide hunting access. MBA has also offered a $500 donation to TIP-MONT to assist with convictions involving livestock killed or injured by archers. Additionally, MBA funded dinners for members of Women in Farm Economics at a 1997 banquet in Sidney.

• The Billings Rod and Gun Club volunteered to supply a work party prior to the 1998 hunting season to help

WHEN RECREATING ON PRIVATE LAND

- Leave gates as you find them.
- Pick up litter, even if it isn't yours.
- If you observe violations of ranch rules or FWP regulations, report them either to the landowner or to TIP-MONT (FWP's toll-free fish and game violation hotline (1-800-TIP-MONT).
- When you have completed your visit, stop and thank the landowner for allowing access.
- A small token, gift, or card of thanks is a gesture that will be remembered by the landowner.
- Avoid asking to use the landowner's bathroom or telephone. NEVER enter the landowner's house in his absence.
- Always treat the land as if it were your own.
- Remember, you are a guest on private land. Access is a privilege, not a right.

landowners in the Block Management Program put up signs. The club also invites landowners in block management to use the club's shooting range facilities free of charge.

• The Custer Rod and Gun Club ran the following thank-you ad on local radio stations and in local newspapers for area landowners who allowed public hunting access:

FARMERS & RANCHERS

The Custer Rod & Gun Club would like to say

"THANK YOU"

to the many area landowners who provided public hunting access during this past season. We sportsmen value the good relations we have with our country neighbors, and we appreciate the habitat you provide for our state's abundant wildlife.

Thanks for sharing your private lands!

• Townsend-area sportsmen volunteered to roll up several miles of old wire that was strung throughout the Canyon Ferry Wildlife Mangement Area. This improved human and livestock safety, and the club got to keep the wire for use on their shooting range in Townsend.

• The Tobacco Root Archers worked with local landowners Ed and Connie Tash to develop an archery range on the Tash's land. In return, the archery club coordinated an effort to spray knapweed on some of the Tash's property.

• The Prickly Pear Sportsman's Association in Helena recently provided partial reimbursement for a local rancher's cow that was killed during hunting season.

• Skyline Sportsmen's, Inc., in Butte helped build a stackyard for a landowner who allowed public hunting and annually suffered damage from elk. This group also helped repair several miles of fence that separated private property and the Fleecer Mountain Wildlife Management Area.

• Every year, on the eve of the opening day of pheasant season, a local sportsmen's group sponsors the Froid Steak Fry in northeastern Montana, where landowners and sportsmen gather to eat supper together and arrange for hunting access on private property during the opening weekend of the pheasant season.

These are some examples of things sportsmen's organizations around the state have done to try to build goodwill and better relationships between landowners and recreationists. Other things that can be done, either by groups or individuals, include:

• An individual or group can offer to assist with farm or ranch work. (In today's sue-happy society, landowners may be unwilling to have recreationists help with ranch chores. Liability is a very real fear for property owners. But making the offer, and meaning it, may provide opportunities for recreationists and landowners to work together.) Some possible activities include picking up old wire, helping build fences or corrals, moving irrigation pipe, spraying or burning weeds, putting up signs, helping at brandings or cattle workings, helping feed livestock, painting buildings or fences, and stacking hay bales. Sometimes, it can be a real help just to offer to watch over the property so that the owners can be gone for a short period of time.

• Offering to assist a landowner in controlling predators, prairie dogs, or animals like beavers and muskrats doing damage to private property is an excellent way to provide a needed service and demonstrate the kind of responsibility a landowner can expect from you as a hunter.

• Occasionally, FWP provides stackyard fencing materials to assist landowners who suffer game damage.

Helping out at branding time is one possible way to assist a landowner and begin to build a bridge to recreational access.

LAURI GURNETT

FWP PHOTO

An extra set of hands makes many ranch chores go easier and faster.

While FWP provides the materials, the landowner must provide the labor. Recreationists can contact regional FWP offices and notify department staff of their desire to assist landowners in erecting stackyards.

• Arizona has a program called "Adopt-A-Ranch," where recreationists "adopt" a ranch and spend a couple weekends a year cleaning up litter, fixing fences, putting up signs, and helping the landowner with various chores. Montana recreationists can do this on their own, either through local clubs or with individual efforts. This is an excellent project for hunter education classes, especially if parents are also involved as part of the effort.

• Landowners frequently try to improve their land by planting windbreaks, building reservoirs, and installing culverts, spreader dikes, dams, and erosion control devices. An extra set of hands or a small work force of individuals can make this work go much easier and faster. This can be an excellent way to get parents and youngsters working together in the field and at the same time working with landowners in a joint effort.

• Perhaps the easiest thing recreationists can do is to simply go for a drive in the country during the off-season. Sure, farmers and ranchers are busy, and they might not have time to stop work to chit-chat for any length of time. But by making the effort ahead of time, and learning who lives where and which land belongs to whom, recreationists can start the process of building a relationship. And, the next time you're looking for a place to hunt for deer or cast for trout, you'll know the landowner, and the landowner will know you. And that's how it all begins.

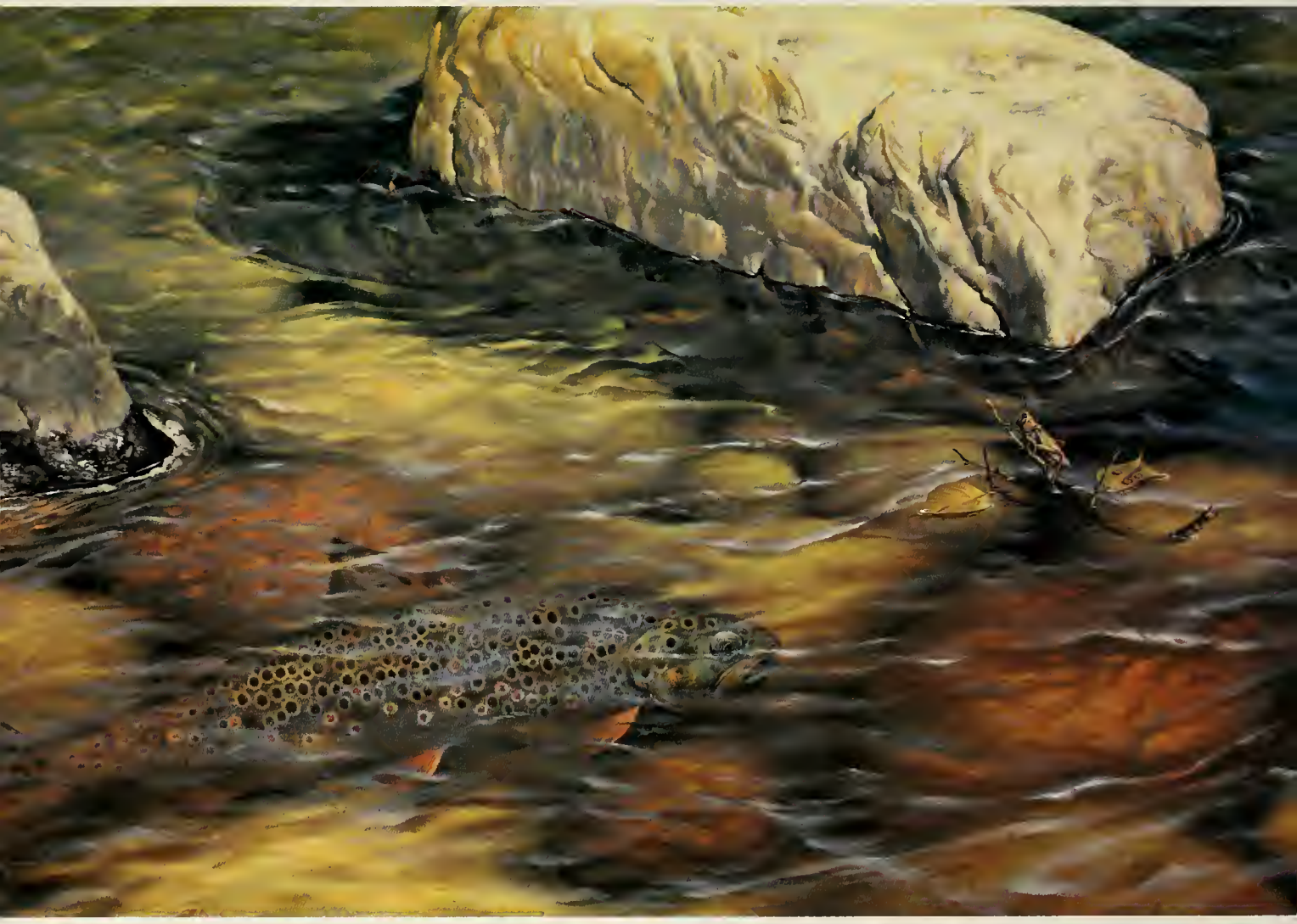
I was sitting at the dining room table in the kitchen of a comfortable little farmhouse on the Yellowstone River bottoms near Rosebud. Outside, the north wind howled ferociously, and even through the walls I could hear the Canada geese honking as they settled onto the stubblefields.

"Oh, yes," the owner said as she watched me fill out the permission slip. "We have lots of hunters every year. This year, we've probably had more goose hunters than ever. We've really met some nice people over the years during hunting season."

"That's nice to hear," I told her. "So often, I only seem to hear about the goofballs that show up."

"Oh," she said, "every once in awhile somebody messes up. But mostly, our hunters are good people. Many of them come back every year. Why, we've got one group of hunters that come out every year from Minnesota to hunt deer and geese. I can't tell you just how many years they've been coming, but you know, this year they'll be bringing the grandson, and that makes four generations of that one family that have been hunting this ranch. As a landowner, I feel proud just to be able to help make that happen."

She handed me the permission slip and told me to have fun, though she pointed out that she couldn't understand how lying out in the snow in all that wind just to shoot at a goose was going to be fun. I tugged hard at my cap and thanked her again. As I pushed my way outside into the hungry teeth of the norther, I thought to myself how fine it was, indeed, that she and her family would share their land with strangers who came to ask. ■



"Perilous Voyage" © 1997 Jack Hines. Artwork courtesy of the artist and Mountain Prints, Big Timber, MT 1-800-736-5234.

Partners

by DENNICE SCANLON

The Millegan Canyon road was narrow and rough, pounding punishment into my car's already well-worn tires. Dust clouded the rearview mirror as I bounced along, and ahead a pheasant dashed for cover. Beside me, the ditchbanks were thick with bluebells that seemed to produce a hum—humming like the car engine or horseflies in the meadow. It seemed that the afternoon itself was abuzz with my thoughts of Smith River trout, waiting just around the next bend.

I drove past the gate and pulled into the yard. Liz was standing on the front porch. She hadn't changed: her eyes the color of late-summer cornflowers, her face furrowed as a wheatfield. We unloaded my gear and went inside. Sitting at the kitchen table, we waded through old times and earlier trips up the river. "The browns have been boiling for hoppers," she said. "After dinner we can tie some up."

And later we began, the hours unwinding like thread from a spool, all the pieces of the puzzle falling into place with deer hair, feathers and dubbing. Then, finally, the finished flies. "A work of art," Liz said, peering over her glasses at the grasshopper imitation in the tying vise. "The fish will wish they had wings because they'll want to grab these in midair."

"I'm sure they will," I answered as I clipped the deerhair head of my Dave's Hopper and held it to the light.

"What do you think?" I asked Liz.

"I think the fish will tear off those legs in no time," she said.

"I think you're right," I agreed.

Smith River browns were not picky when feeding on grasshoppers. The bankside willows and high grass are thick with them throughout July and August, and trout churning the surface beneath the cutbanks are not the least bit suspicious of a legless imitation. I decided the flies I tied next would be without legs.

We kept at it for hours—winding, tying, clipping—the patterns becoming more simple as we tired and our patience waned.

"Let's call it a night," Liz finally said. "I put your bags in my daughter's old room. Get a good sleep because you'll need it to keep up with me." She dropped her flies into a small plastic box.

As I faded into sleep, I recalled meeting her the first day of school. I was a fledgling teacher in Cascade, Montana. Liz was in her 60s and ready to retire. She drove the school bus nearly a hundred miles each day, stopping at almost all of the ranches in the area. "I'm a widow," she said. "I like the company."

On that morning, I watched the children spill from the yellow bus and flood the freshly waxed hallways, thinking they looked a little lost and forlorn. But when the day ended, I realized that I was the one who was lost—in a strange, new town without a friend, without a clue as to what I was doing, without a partner to fish the sloughs and eddies of the broad Missouri. After classes that first day, I brooded in the faculty room over a pile of papers and a cup of stale coffee.

"School's out. Why don't you drive up to my place and we'll go fishing?" Liz said as she stood in the doorway. Her smile warmed the room.

"Is the fishing good out your way?" I asked.

Your arms will ache from throwing fish back into the river. And the trout are huge. I caught one last week that was so big I had to measure it in shifts. The picture alone weighed three pounds."

"I'm sure it did," I answered, laughing.

It wasn't long before we were walking the banks of the river, Liz far upstream, me panting behind.

"You're out of shape," she yelled. "You're right," I said gasping.

When we reached the Smith River, the fishing was good, almost as good as Liz had promised. And the trout were almost as big.

The stream had long, deep runs and gentle bends. Because most of the land was private, and Liz was a good neighbor, we had the water to ourselves. Anglers who floated downstream

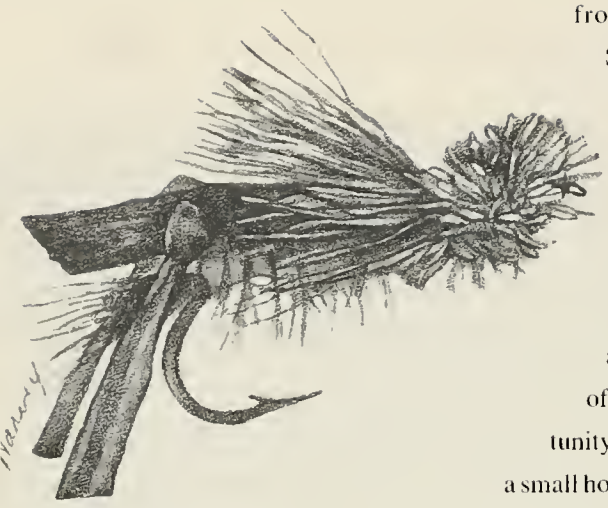


Illustration by Lisa Harvey

from White Sulphur Springs seldom reached Millegan Canyon. I took full advantage of the opportunity. I drifted a small hopper into a still pool and felt the thrill of my first Smith River brown.

Liz and I fished the shores until after dark that day. We didn't mind stumbling over stumps and rocks or striking at the sound of a splash, hoping to feel the tug of a giant trout rising to a piece of the night.

Every day after school and on weekends, I pounded down the road to her place. It was nestled among cottonwoods where greater branches of the Smith flowed toward lesser parts of the Missouri. Above the largest stand of cottonwoods, a mine tunnel opened like a wound in the hillside. Liz's family had worked the mine years ago, when the price of coal could provide a living. That was before her son was killed in a hunting accident; before her daughters married and moved to town; before her husband died; before the solitude of the country started seeping beneath the cabin door like a draft, filling the house with longing.

Autumn evenings on the Smith River ebbed into winter. Whitefish swirled for snowflies or nosed grubs from beneath the ice floes. Spring opened on the river with a rush of rain and sunlight, and wildflowers stippled the hills. We tied flies for every season, but yearned for those dog days of summer when hoppers were a trout's sole delight.

At the end of the school year, I decided to take a teaching job closer to my hometown and the kind of life I was accustomed to. Although we fished through that summer, by fall I found myself far from Liz and the wild trout of the Smith River. She would write, "When are you coming for a visit? The fish are begging on bended fins." How could I resist?

I made my first trip in more than a year.

When dawn broke, I awoke shivering. The sun was starting to nudge its way through the window shades and the smell of sourdough cut the cold.

"Shake it out! The trout are waiting for breakfast with little checkered napkins tucked in their gills," Liz called from the kitchen.

"I'm sure they are," I muttered, as I shuffled into the hall.

The bright morning, the churning river, the wheat soaked with dew, whitetails scurrying up the ridge—amid all this, the trout seemed a bonus. We drove for an hour to "a secret run," a stretch of water I'd never fished. Liz knew the landowners well. We shared fish stories and coffee on their deck, overlooking the valley. Then it was down to business. We assembled our rods and began fishing upstream—with hopper patterns.

But these trout were spooky. I switched to a Size 14 fly and a lighter tippet. I started drifting the riffles and hooked two fish that went about 15 inches each. Liz caught a few nice browns but she, too, was biding her time. We were on hold, waiting for the grasshoppers, still numb from the morning cold, to come to life in the afternoon sun. Then the shores would explode as every step sent hoppers flying like kernels of popcorn. A breeze would sweep them into the current, driving the fish to a frenzy.

"I'm putting on a deer-hair hopper," I said. "There's a big brown feeding just under that deadfall."

"That's a tough spot. You'd better tie on a heavier tippet or you'll never land it," Liz said from the shore.

"This is a 5X. It should do the trick." I cast above the slurping trout, near a large, hanging branch. The fly floated high for a few seconds, then disappeared in a tiny whirlpool. The fish thrashed on the surface, rolled its yellow belly toward the sky and took off for the timber, right under the deadfall and up the other side. My tippet snapped with the sound of a dry twig.

"God, that was a huge fish," I moaned.

"At least four pounds," Liz said.

"I needed a heavier tippet." I shook my head and walked toward the shore.

"You'll get it on the next trip," Liz said, sitting down on a log and taking a bag of sandwiches from her pack.

"You really think so?"

"Sure you will, partner." Then she smiled, and I felt the first

warmth of that August day.

By the time we finished lunch, the sun was doing its work. Grasshoppers literally sprung from the banks. The fish were moving. I changed to a 4X tippet and played it safe for the rest of the afternoon. For a while, it seemed we could do no wrong. Almost every cast, no matter how sloppy, produced a strike. Then the action cooled and we decided to work our way back downstream. Liz landed one final beautiful brown just before we packed for home. It measured 22 inches and she caught it on my hopper—the one with the legs.

"The fish didn't tear off those legs," I said.

"He didn't want to hurt your feelings," she countered.

"I'm sure he didn't," I said, smiling.

I broke down my rod and left the bends and eddies for another day, knowing they would be there when I returned. The river was something to count on, resilient and enduring; an old friend.

One summer faded into another and yet another. Life, like the river, seemed to be forever carving out a new course. Millegan Canyon became worlds away. I wrote to Liz: "Sorry I can't make it this year. I'm going back to school. Keep the fish on their toes—tails, I mean."

She wrote back months later, saying she had broken a leg and was having a hard time getting around. I vowed to visit that summer. No excuses. By June, the water started to clear. I checked my supply of hoppers and 4X tippets. It wouldn't be long.

Early one morning, the phone jarred me from sleep. My heart was pounding when I answered. Liz had died. The voice on the other end was distant, muffled by static. "I thought I should contact you. I know you were friends."

"More than that," I whispered. "We were partners."

A vision returned of that first, lonely afternoon at school when Liz had appeared in the doorway. Her smile had brightened up the day and turned the ones that followed toward the sun. I thought about her far upstream and me trying to keep up, about her precise casts and no-nonsense flies, about the way she offered her friendship without terms or reservations. Then, I thought about the river and how it had a way of resolving everything—age, loneliness, loss, pain—before it flowed toward lesser parts of the Missouri and became a greater branch of memory.

I haven't returned to the Smith, although years have passed. I've committed it to my thoughts. As Liz would say, some things are best left as they were. Still, on certain late-summer mornings, when the scent of hay triggers reminiscence, I'm awakened, again, by the sun nudging its way through the blinds—soft as a touch, warm as a familiar voice. I rise and press against the window and see the river winding through Millegan Canyon. I hear Liz calling in the distance.

"Come on. The fish are waiting for breakfast with knives and forks in their fins."

For her, I'm sure they are. ■

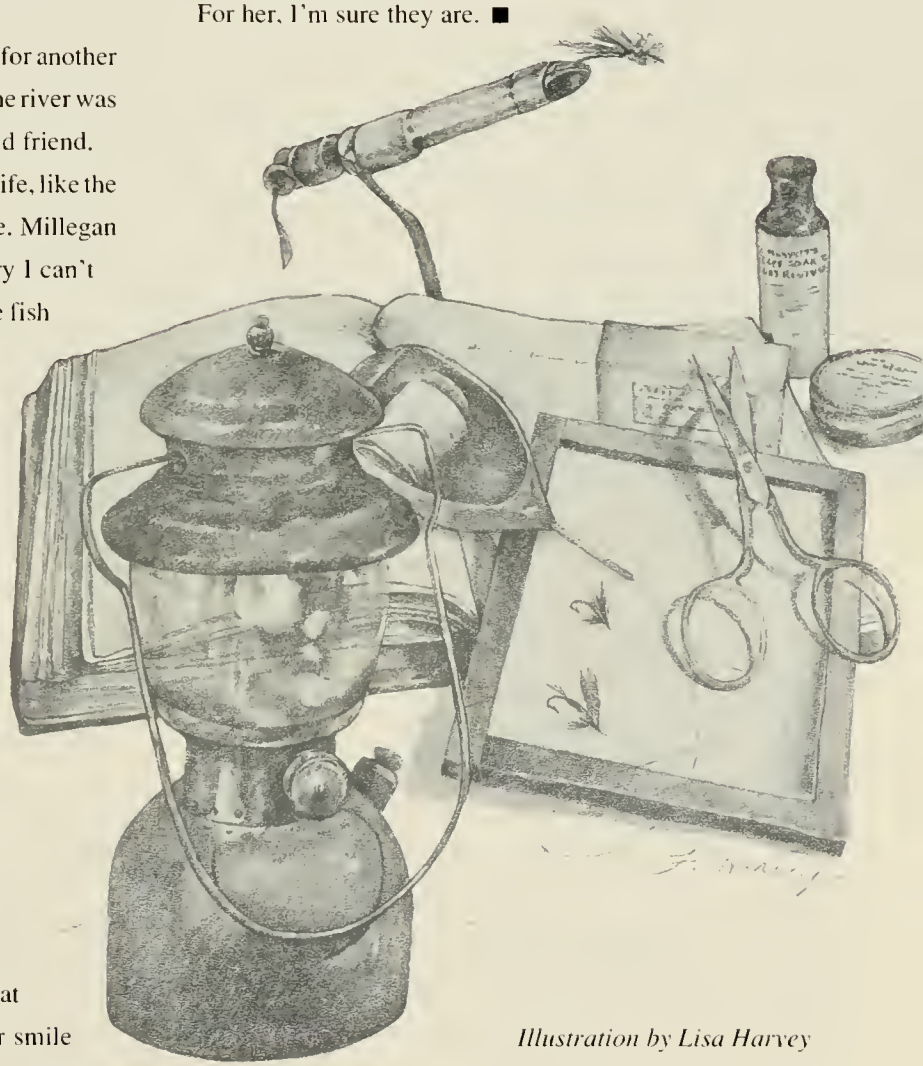


Illustration by Lisa Harvey

"HIP" PROGRAM TO BEGIN THIS FALL

Whether your passion is hunting snow geese on a foggy November morning at Freezout Lake Wildlife Management Area, being humbled by mourning doves zipping across sunflower fields along Montana's Hi-Line, or jump-shooting mallards on an ice-choked portion of the lower Yellowstone River, you'll be required to take part in a program this fall that promises to provide more accurate harvest estimates of all migratory birds hunted in the United States.

MIKE BARLOW

Starting this fall, Montana migratory bird hunters will participate in a national harvest survey.

This national harvest survey, officially termed the Harvest Information Program (HIP), is a new method that will allow the U.S. Fish and Wildlife Service (USFWS) to develop more reliable estimates of numbers of migratory birds harvested. These estimates will give biologists the information needed to make sound decisions concerning hunting seasons, bag limits, and population management.

HIP is based on a survey of migratory bird hunters across the United States. In this program, which is already underway in many other states, the USFWS randomly selects a sample of hunters and asks them to provide information on the kind and number of migratory birds they harvested during the hunting season.

If you are a migratory bird hunter, to comply with HIP you must fill out a survey form with your name, address, and date of birth before you can purchase your Montana Migratory Bird Stamp. Second, you must have proof of your participation in HIP with you whenever you hunt migratory birds in the state. Your Montana Migratory Bird Stamp will be your proof of participation after you complete the necessary survey form.

In addition, when you sign up for HIP, you'll be asked to voluntarily answer several questions about your hunting experiences during last year's season. Your answers to these questions are not used to compile harvest estimates, but simply to identify the types of birds you usually hunt. This allows the USFWS to target their surveys to the appropriate hunters. For example, questions about dove harvest would be asked of hunters who primarily hunt doves, while duck harvest questions would be asked of hunters who primarily hunt waterfowl. It will also allow the USFWS to sample different groups of hunters based on their level of harvest.

If your name is one of the few selected for a national harvest survey, you'll be asked to voluntarily complete a more detailed survey about the results of your hunts this fall. You'll receive a personal letter and a hunting diary from the USFWS, and be asked to keep a record of the migratory birds you harvest. You'll also be given a postage-paid envelope to return your hunting form in at the end of the season. Responses from hunters who choose to participate will be kept strictly confidential and will not be used for any other purpose. When the survey is complete, the USFWS will destroy all name and address records.

The USFWS has conducted waterfowl harvest surveys since 1952, and many states have long histories of conducting harvest surveys. These surveys provide some of the information currently used to set waterfowl hunting regulations. Although this data has been useful, some problems need to be corrected to improve the scope and quality of the information.

Previous federal waterfowl surveys were based on a sample of hunters who bought federal duck stamps. In addition to questions about harvest of ducks, geese, and swans, the survey also included questions about non-waterfowl (or "webless") migratory birds. However, there are about two million people who hunt only non-waterfowl migratory species, such as doves, snipe, and woodcock. Because they are not required to buy federal duck stamps, these hunters were never included in the federal harvest survey.

Hunters have a long history of taxing themselves, paying license fees, and buying stamps—all to ensure the health and vigor of wildlife populations. HIP is just another page in that history. It is simply good conservation.

As concern for migratory bird populations continues to mount, it is essential to gather the best information possible about factors affecting these populations. It is in hunters' best interest to have wildlife management decisions based on scientific evidence, not on opinions or politics. The Harvest Information Program, through the cooperation of hunters, will provide biologists with many of the facts they need to ensure that our migratory bird resources—and hunting tradition—will be around for future generations to enjoy.—*William Phippen, information officer, Conservation Education Division, Helena*

River Manager of the Year

Gary W. "Woody" Baxter, FWP's recreation manager for the Blackfoot-Clearwater River Corridor, was recently honored as the first recipient of the River Management Society's "River Manager of the Year" award at its national symposium in Anchorage, Alaska. The River Management Society is a professional society dedicated to the protection and management of North America's river resources.

Baxter, who has worked for the department since 1986, has been Blackfoot River manager since 1990. In that time he has helped develop a multi-agency management plan for the river, successfully coordinated management efforts with many different landowners, and enhanced the recreation experience for visitors, always keeping the health of the river as his top priority.

The Blackfoot-Clearwater River Corridor is jointly managed by FWP and the Bureau of Land Management (BLM). In a congratulatory letter from FWP Director Patrick J. Graham and BLM Director Pat Shea, Baxter was applauded as "a true friend of wild rivers...[whose] stewardship of this precious resource is an example for us all to follow."

Montana State Parks Calendar

July

3-5—Lewis and Clark Encampment at Giant Springs State Park
Living interpretation of the portage around Great Falls with a variety of historical activities for all ages, including plays, buffalo barbecue, lectures, guided tours, and float trips. Call 406-454-5840.

4—Nature Movies at Lone Pine State Park
Movies will be shown at the visitor center from 10:00 a.m. to 2:30 p.m. Call 406-751-4577.

11—"Cardboard Cup" Regatta at Spring Meadow Lake State Park
Build and race a cardboard boat to help raise funds for the Montana Wildlife Rehabilitation Center. Call 406-444-4720.

15—Concert in the Park at Lake Elmo State Park
The Billings Community Band will perform from 7:00 p.m. to 8:00 p.m. Admission is free.

18-19—Bannack Days at Bannack State Park
History comes alive in this celebration of the Montana frontier. Activities include pioneer skill demonstrations, old-time music and food, old-fashioned melodramas and skits, wagon rides, gold panning, dancing, mountain men, and more. Call 406-834-3413.

25—Annual Beach Games at Lake Elmo State Park
A variety of fun and crazy sports events held on the beach of Lake Elmo. Activities include the keg toss, canoe race, football toss, paddleboat races, games, prizes, and food. Call 406-247-2940.

25-26—Big Sky Thunderbirds at Frenchtown Pond State Park
Come watch the Big Sky Thunderbirds fly their beautiful radio-controlled model planes. Call 406-542-5533 or 406-543-7024.

July 25-26—Jordan/Hell Creek Walleye Tournament
Entry fee for this annual event is $170 per team, limit of 125 teams. Call 406-232-0900 or 406-228-3700.

August

1—Jefferson River Canyon Float
Join the Lewis and Clark Caverns State Park staff on a 3-hour guided canoe and raft trip through the scenic Jefferson River Canyon. Floaters depart Cardwell Fishing Access Site at 8:00 a.m. Participants must furnish their own watercraft, lunch, and equipment. Call 406-287-3541.

1—Annual Youth Fishing Tournament at Hell Creek State Park
Limited to children 5-13 years of age. A $10 entry fee includes lunch and T-shirt. Call 406-232-0900.

1—Nature Movies at Lone Pine State Park
Movies will be shown at the visitor center from 10:00 a.m. to 2:30 p.m. Call 406-751-4577.

5-6—Youth Camp-out at Makoshika State Park
A full evening of fun and overnight camping at Lions Youth Camp for kids who have attended at least two youth programs at Makoshika. Call 406-365-6256.

14-16—Dinner Theater at Makoshika State Park
Friends of Makoshika present an outdoor dinner at 5:00 p.m. followed by an original theater production. Call 406-365-6256.

15—Women's Walleye Tournament at Hell Creek State Park
Entry fee for this annual event is $20 per team, limit of 50 teams. Call 406-232-0900.

22—Garden City Triathlon at Frenchtown Pond State Park
This event beginning and ending at the park includes a 1,200-yard swim, 20-mile bike ride, and 5-mile run. Call 406-543-6920 or 406-542-5533.

29—Living History at Fort Owen State Park
Explore a self-guided museum tour and enjoy history and folklore presented by featured interpreters from 1:00 p.m. to 4:00 p.m.

Boating Agreement Signed

In an effort to promote safer boating in Montana, Rear Admiral J. David Spade, commander of the 13th U.S. Coast Guard District headquartered in Seattle, and Governor Marc Racicot signed a cooperative agreement at the Capitol in May. Montana will receive a federal grant of $375,000, which will be matched with state boating funds to provide a total of $750,000 for use in boating enforcement, education, and accident investigation. In Montana, boating safety is administered by Montana Fish, Wildlife & Parks.

In 1997, says program coordinator Liz Lodman, 47,000 motorboats and sailboats were registered in Montana, up from 36,700 in 1990. Sailboats less than 12 feet in length and non-motorized boats are not required to be registered.

Montana law requires youngsters 12 years of age and under to be accompanied by an adult when operating a motorboat with a motor greater than 10 horsepower. Boat operators 13 or 14 years of age must either be accompanied by an adult or possess a motorboat operator safety certificate. "Certificates can be obtained by completing an FWP-approved boating education course," says Lodman. "The U.S. Coast Guard Auxiliary offers classroom courses, and a home-study course is available from all FWP offices."

The U.S. Coast Guard Auxiliary, a civilian volunteer arm of the U.S. Coast Guard, promotes recreational boating safety in Montana. Auxiliary members conduct boating classes, provide assistance on the water to those in need, perform courtesy vessel inspections, aid in disaster-relief efforts, and provide safety information at boat shows, marinas, and boat dealerships. There are flotillas of the Coast Guard Auxiliary in Great Falls, Helena, and Kalispell, with detachments in Polson and Libby.

National statistics reveal that in 80 percent of all boating fatalities, the victims were not wearing life jackets, says Lodman. She notes that youngsters under 12 years of age must wear a U.S. Coast Guard-approved life jacket at all times while on board a boat that is underway. "There must be at least one wearable Coast-Guard approved life jacket for each person on board all boats less than 16 feet in length, including canoes and kayaks of any length," she says. Seat cushions and throwable rings are not considered life jackets and may not be substituted for a wearable life jacket in boats under 16 feet in length.

PHOTO COURTESY OF THE U.S. COAST GUARD AUXILIARY

U.S. Coast Guard Rear Admiral J. David Spade (left), Governor Marc Racicot (center), and Montana Fish, Wildlife & Parks Director Patrick J. Graham signed a cooperative agreement at the Capitol in May promoting safer boating in Montana.

FWP PHOTO

Vandalism at state parks and fishing access sites costs thousands of dollars every year.

Vandalism in State Parks: A Never-ending Problem

Latrines so full of bullet holes, it's a wonder the walls remain vertical. Soap and toilet tissue dispensers ripped off walls. Doors kicked in. Picnic tables chopped up for firewood.

All of the above have been found at Montana state parks and fishing access sites (FAS) after vandals paid a visit. The damage seems to be more common each year and it never stops.

"This never seems to end," laments Ray Swartz, parks maintenance supervisor for Montana Fish, Wildlife & Parks (FWP) in Great Falls. "It goes on for ever and ever and ever."

Consider that in just the last few months:

- Someone fired 15 rifle shots and five shotgun blasts through a latrine at Eureka Reservoir outside of Choteau; repair cost: $828.50.
- Another "marksman" shot the outhouse at Arod Lakes 52 times; estimated repair cost at least $500.
- The outhouse at Wolf Creek Bridge FAS on the Missouri River had the toilet tissue dispensers ripped off the wall and destroyed. Because the dispensers are stainless steel, replacement cost will be more than $100. As

with other remote sites, the price tag for repairs includes the maintenance crew's mileage and per diem.

• At Giant Springs State Park, someone destroyed the soap dispensers in the restrooms, dented the doors, ripped the door stoppers off the walls, then threw the rocks used to create the damage into toilet for someone to dig out. No cost estimate yet.

"And there are always signs that get shot up," Swartz adds.

Maintenance and repair are the constant costs in the state park system. However, in addition to dollar figures, vandalism costs in other ways, too.

In northwestern Montana (FWP's Region 1), vandalism at Wayfarers State Park led FWP officials to lock the park gates each night. As a result, the park now closes at dusk. During the summer camping season, park hours are from 7:00 a.m. to 10:00 p.m. daily.

So what's a person who is fed up with the damage and costs and inconvenience to do? The easy answer is to TURN IN those people who damage state parks and fishing access sites. Anyone with information that leads to the arrest of a parks law violator is encouraged to dial 1-800 TIP-MONT. A reward is available and callers can remain anonymous.

The harder challenge in today's society is teaching ethics, the difference between right and wrong, and making it stick. Borrowing from FWP's hunter education program, the definition of an ethical person is someone who knows and respects the property of others, follows the law, and behaves in a way that will satisfy what society expects of its citizens.

Ethics should be taught in the home. Those folks who destroy state park property know their actions are wrong and were probably taught such actions were wrong as youngsters. But they chose an illegal and destructive path anyway.

The result becomes a burden in terms of time and money that everyone must shoulder.—*Bruce Auchly, information officer, Conservation Education Division, Great Falls*

Partners With Wildlife

Partnerships grow from understanding and respect. During a recently completed two-year program, nearly 4,000 Helena elementary students and their teachers joined into a partnership with wildlife by "adopting" and studying several different Montana wildlife species.

The "Adopt-A-Species" program was initiated by the Mikal Kellner Foundation for Animals in partnership with Montana Fish, Wildlife & Parks and the Helena National Forest. Each of 13 elementary schools chose one species of Montana wildlife for in-depth study. During the first year students determined the habitat required for the species' survival, and in the second year, helped educate others about their adopted species.

The schools were provided with speakers, educational trunks, and associated materials and films. The program included presentations, field trips, a wildlife film festival, and art contest.

The winning entries in the art contest were compiled into a calendar, with proceeds from calendar sales helping to fund a new Wildlife Rehabilitation and Education Center to be constructed adjacent to Spring Meadow Lake State Park in Helena.

It is hoped the Adopt-A-Species program will expand into other Montana communities in the upcoming school year. For more information, contact the Mikal Kellner Foundation for Animals, P.O. Box 389, Helena, MT 59624.—*Amy Teegarden, Helena National Forest*

Posters Celebrate State Parks

1st Place
David Kukay, Lewis & Clark School, Great Falls

During the past school year, Montana Fish, Wildlife & Parks conducted its seventh annual statewide poster contest for fifth-grade students as a means of enhancing awareness of Montana's state parks. The theme for this year's contest was "Montana State Parks: Families and Fishing Go Together." The winning entries, selected by a panel of judges in April, will be on display at FWP regional offices according to the following schedule: Great Falls, 6/22 to 7/10; Kalispell, 7/13 to 7/31; Bozeman, 8/3 to 8/14; Billings, 8/17 to 9/4; and Miles City, 9/7 to 9/18.

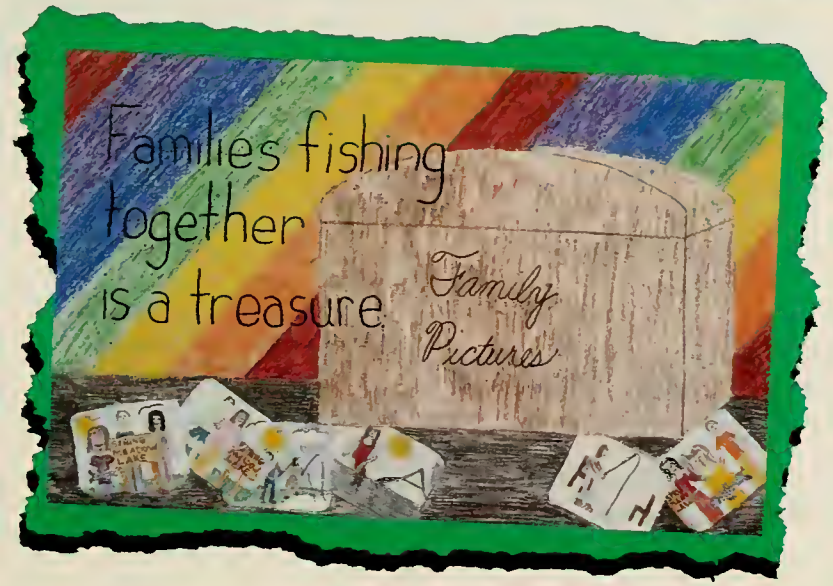
David Kukay's crayon drawing of a family enjoying the sport of fishing while camping, hiking, and relaxing at Sluice Boxes State Park was chosen as the contest winner. He received a $150 savings bond and a T-shirt with his poster screened on the front. His school also received a state park video and books for its library.

2nd Place (tie)
Pete Betcher,
Choteau Elementary School

Pete's clever poster portrays human families and trout families coming together for a unique experience on the Smith River. He received a $100 savings bond and a T-shirt.

2nd Place (tie)
Nichole McKinney,
Eureka Elementary School

Nichole's colorful poster focuses on the relaxation that fishing brings during a visit to Whitefish Lake State Park. She received a $100 savings bonds and a T-shirt.



3rd Place
Kelsey Poore,
Ray Bjork School, Helena

Kelsey's creative poster depicts photos from a family picture album featuring families fishing together at Spring Meadow Lake State Park. She received a $50 savings bond and a T-shirt.

"Swamp-Out": A Tool for Restoring Westslope Cutthroat in Headwater Lakes

by Joe Huston
Fisheries Biologist (retired)
Fisheries Division, Region 1

The westslope cutthroat trout, once the most widely distributed native trout in Montana, has declined due to habitat degradation, replacement by other trout species (rainbow, lake, brown, and brook), and hybridization with rainbow and Yellowstone cutthroat trout. The westslope historically occupied much of the Kootenai River drainage, all of the Clark Fork River drainage, and the Missouri River drainage above Fort Benton. Today, genetically pure populations exist in only a small fraction of the Missouri River drainage but still occur in a significant portion of waters west of the Continental Divide.

The South Fork of the Flathead River drainage above Hungry Horse Dam provides the largest remaining refuge for native westslope cutthroat in the United States. Between 1983 and 1988, Montana Fish, Wildlife & Parks (FWP) and the University of Montana Wild Trout and Salmon Genetics Laboratory surveyed most lakes and streams in the South Fork drainage to pinpoint westslope populations. Of 49 lakes surveyed, only three contained exclusively aboriginal westslope cutthroat trout. Another five had westslope of hatchery origin. Nineteen lakes contained westslope cutthroat that had hybridized with either rainbow trout or Yellowstone cutthroat trout or both; nine lakes held either rainbow trout or Yellowstone cutthroat; and one lake had only brook trout. Twelve of the lakes were fishless.

Of 48 streams surveyed in the South Fork drainage, 33 had pure westslope and 15 contained hybrids (westslope with Yellowstone cutthroat or rainbow trout). Ten of the 15 were outlet streams of headwater lakes containing hybridized westslope or non-native trout; the other five were spawning areas for cutthroat and bull trout from Hungry Horse Reservoir, where Yellowstone cutthroat, rainbow trout, and hybrids exist in very low numbers. Seventy-five fish from three locations in the mainstem South Fork included only one westslope-Yellowstone cutthroat hybrid.

The non-native trout present in the South Fork of the Flathead drainage can be traced to fish hatchery plantings over much of the century. The earliest recorded stockings occurred in the 1920s when fish were planted in headwater lakes. From the 1920s through the mid-1950s, only rainbow trout or Yellowstone cutthroat were available for planting. Since 1967, however, Montana's hatchery system has included genetically pure westslope cutthroat originating from aboriginal sources.

The presence of rainbow trout, Yellowstone cutthroat, and hybrids in most headwater lakes and outlet streams is a threat to maintenance of pure westslope in the South Fork drainage. One solution would be to eliminate or reduce these non-native or hybridized populations, but chemical or mechanical removal of these fish would be expensive and logistically difficult.

Fortunately, a genetic survey of two headwater lakes in 1982 and a review of pre-1982 data brought to light an alternative solution. Although fish from these lakes had been classified as Yellowstone cutthroat in the 1960s (the lakes had been planted with Yellowstone cutthroat from the 1930s through 1960s), in 1982 genetic testing revealed they were pure or nearly pure westslope. Each of these lakes had been planted with westslope cutthroat in the late 1960s, 1970s, and early 1980s. Replacement of the Yellowstone cutthroat by the westslope had to have resulted from two processes: competition and interbreeding.

This led to a long-term experiment

Once abundant throughout western Montana, the westslope cutthroat trout has declined due to habitat changes, competition with non-native trout species, and hybridization.

DAVE BENNETT

Black Lake, one of five lakes in the Jewel Basin Special Management Area experimentally stocked with westslope cutthroat trout, showed a major shift to westslope cutthroat genes over an eight-year period.

on restoration of westslope in headwater lakes and outlet streams using a technique called "swamp-out," which involves planting hatchery-reared westslope for four to five continuous years and possibly longer.

Under controlled conditions it is possible to change a rainbow or Yellowstone cutthroat to an essentially pure westslope cutthroat in eight generations, or about 32 years. This change depends on pure westslope breeding with progeny of preceding crosses. Trout from the first-generation cross would be 50 percent westslope, and from the eighth-generation cross 99.6 percent westslope.

Predicting a similar result in lakes of the South Fork drainage was not possible since various lakes contained pure rainbow, pure Yellowstone, or hybrids with different degrees of westslope cutthroat influence. Degree of hybridization in individual fish (i.e., proportion of westslope to non-native genes) varied from 8 percent westslope and 92 percent non-native to the reverse, and all proportions between. But biologists theorized that pure westslope planted in these lakes, through competition and interbreeding, would effectively eliminate the non-native populations in 20 to 40 years.

A swamp-out program using young-of-the-year westslope cutthroat was begun in the South Fork drainage in 1985 and is ongoing in several lakes. In all, 22 lakes are involved; most are planted by helicopter, others by horse or backpack. An intensive evaluation is underway on five of these lakes in the Jewel Basin Special Management Area (see map).

In the table below, genetic makeup of an average fish collected from each lake in 1994 or 1995 is compared with genetic makeup during the initial survey in 1986. Four of the five lakes showed a major shift toward westslope cutthroat over that period. The exception is Clayton Lake, where no change was evident after five years of aerial fish stocking. Both Black Lake and Lower Big Hawk lakes, similar in size to Clayton, had shifts to westslope; Black, however, was planted with considerably more fish per acre while Lower Big Hawk was planted for three more years than Clayton Lake.

One of the basic goals of the swamp-out method is to establish and maintain good numbers of pure westslope for mating with either hybrids or non-native trout. This can be

Change in Genetic Composition of Trout from Five Lakes in the Jewel Basin Following Swamp-Out

Lake	Year of Sample	Genetic Makeup of an Average Trout			Years Planted (with westslope)	No. of Fish Planted/ Acre
		% westslope cutthroat	% rainbow	% Yellowstone cutthroat		
Black	1986	86	12	2	1985-1989	160
(50 acres)	1994	95	5	0		
Blackfoot	1986	25	75	0	1986-1989	147
(17 acres)	1994	65	35	0		
Tom Tom	1986	0	0	100	1985-1988	178
(10 acres)	1994	67	0	33		
Lower Big Hawk	1986	54	0	46	1986-1993	110
(43 acres)	1995	92	0	8		
Clayton	1986	73	0	27	1985-1989	110
(62 acres)	1994	72	0	28		

done by continual planting, as was done in Lower Big Hawk, or by shifts in genetic structure after planting ceases. Black, Blackfoot, and Tom Tom lakes, which were last planted in 1988 or 1989, showed significant changes by 1994.

How did planting of the lakes change genetic composition of their outlet streams? Black and Blackfoot lakes are sources of Graves Creek, which drains into Handkerchief Lake and Hungry Horse Reservoir. In 1983, composition of an average fish at a site upstream from Handkerchief Lake was 80 percent westslope, 18 percent rainbow, and 2 percent Yellowstone cutthroat. By 1994, an average fish from the same site was 92 percent westslope and 8 percent rainbow—a marked increase in westslope genes.

Wheeler Creek, the outlet stream for Tom Tom Lake, drains into Hungry Horse Reservoir. This stream is divided into two sections by a high falls located about five miles above the reservoir. The lower five miles is a spawning and rearing area for bull trout and cutthroat from the reservoir, while the creek above the falls was fishless until Tom Tom Lake was planted with Yellowstone cutthroat in 1941. Electrofishing a section of creek above the falls in 1983 produced three fish, all Yellowstone cutthroat. In 1994, 18 fish taken from this section averaged 42 percent westslope and 58 percent Yellowstone. Most were first-generation hybrids that had drifted out of Tom Tom Lake.

Wheeler Creek below the falls, because it is a spawning area for fish from Hungry Horse Reservoir, was a major concern of this experiment. Had fish drifting out of Tom Tom Lake contaminated reservoir westslope cutthroat? Analysis of cutthroat collected in 1983-84 from lower Wheeler Creek showed the average fish to be 98.7 percent westslope cutthroat, while fish taken in 1994 were still 98.3 percent westslope, a very slight change.

Two side issues were considered important for this long-term experiment: impacts on fish growth and size and the possibility of reduced angler opportunity. Planting large numbers of hatchery fish can decrease growth rate and size of fish, resulting in angler dissatisfaction. However, the data show only minor differences in length of 4-year-old fish from the five lakes between 1986 and 1994 or 1995. Angler dissatisfaction is best measured by comments over the years. Few comments—positive or negative—have been received since the start of this program in 1986.

Several reasons are apparent for the success of the swamp-out: (1) native westslope cutthroat evolved in pristine habitats and may be superior to non-native rainbow or Yellowstone cutthroat; (2) Montana's westslope cutthroat hatchery broodstock, originating from about 6,000 aboriginal fish taken from 13 different sources in 1984 and 1985, has a very wide genetic diversity; and (3) westslope fry planted in mid-August are larger than young-of-the-year produced in these lakes, giving them a survival advantage. The five experimental lakes and two outlet streams are scheduled for another round of genetic testing in 1998-99, and other lakes will be tested as time permits.

Restoration of the westslope cutthroat trout throughout its range in Montana will require using several techniques in a variety of habitats and situations. The swamp-out technique is a promising tool for restoring these native fish to small headwater lakes.

Jewel Basin Lakes undergoing swamp-out

Map data from Montana Fish, Wildlife & Parks Information Services Unit, Kalispell.

MONTANA OUTDOOR

MARKET

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This preshrunk, 100% cotton, long-sleeve shirt can be worn alone or as a base for layering. Available in *natural, leaf,* and *lake (shown)*, with embroidered mule deer, in sizes M, L, XL. **ITEM #1301-6 $29.95**

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blue *natural*

Golf Shirt

With contrasting collar, cuffs, and placket, this 100% combed cotton pique golf shirt is available in *forest green/wine/navy*; *wine/forest/navy (shown)*; and *jade/concord/royal.* Comes with embroidered Montana Outdoors logo; available in sizes M, L, XL.
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forest green/wine/navy *wine/forest/navy* *jade/concord/royal*

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This preshrunk, 100% cotton T has embroidered chipmunk detail. Preshrunk. Available in *ash, sage, straw (shown),* and *forest green* in sizes S, M, L, XL. **ITEM #1102-2 $15.95**

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Detailed with dry fly and rainbow trout; has adjustable fabric strap with brass buckle. Available in *dark green, charcoal, denim,* or *two-tone (denim visor and khaki crown, shown).* One size fits all. **ITEM #2101-4 $14.95**

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CONTRIBUTORS

Auchly

Giant Springs Heritage State Park in Great Falls, says **Bruce Auchly**, is "an urban park loaded with open space." Also the site of a fish hatchery and FWP's Region 4 headquarters, the popular park has always received plenty of use. But completion this spring of the Lewis and Clark Interpretive Center inside the park will add an estimated 100,000 visitors annually—a prospect that has park officials excited and a little overwhelmed. As Auchly points out, the new interpretive center is a federal facility managed by the U.S. Forest Service, so keeping things running smoothly at the park will require cooperation between agencies. To learn how state and federal managers hope to make Giant Springs "A Blend of Past and Present," turn to his article on page 2. Auchly is FWP's information officer in Great Falls.

Richie

Southwestern Montana's Big Hole River Valley is rich in wildlife and history, and the trout fishing is world-class. Beginning on page 7, **Deborah Richie** outlines a 220-mile auto tour that captures the best of what this unique region has to offer. Wildlife management areas, a national scenic byway, a ghost town, a national battlefield, and hot springs are all stops along the way. Be sure to take your camera, bird guide, and flyrod, and plan for at least three days. Richie, an avid wildlife watcher and owner of a communications firm, lives in Missoula.

Due to a major influx of people, western Montana's Bitterroot Valley has changed in recent years. And so has wildlife management in this busy area, says **Mike Thompson**, an FWP wildlife biologist headquartered in Missoula. "I've learned that a conservation easement is not only about wildlife—it is about people." In his "Lands Legacy" installment (p. 13), Thompson describes the events leading up to negotiation of three conservation easements adjacent to the Threemile Wildlife Management Area, a traditional winter range for elk and deer along the foothills of the Sapphire Mountains. "When all is said and done," he notes, "these easements are testaments to the common values of people who came before us, those who are with us now, and others who will inherit what we leave behind."

Charles

In times not so long past, landowners often knew the people asking permission to hunt on their land. Hunters usually lived in nearby communities or came recommended by friends or family. But in today's world, observes **Alan Charles**, recreationists often hail from cities miles away, and the knock at the ranch house door is often the knock of a stranger. Understandably, that gives landowners pause for thought. "The fact is," he says, "most hunters are perfectly nice people, and so are most landowners, but they need to establish mutual familiarity and trust." In his article beginning on page 17, he recommends that recreationists take time to build relationships with landowners *before* asking permission to hunt, fish, or hike. He cites efforts sportsmen's groups have made to establish better relations with landowners, and suggests some ideas that might help individuals in "Oiling the Gate Latches." Charles is FWP's landowner/sportsman coordinator in Helena.

A river—particularly a beautiful, trout-filled river—can be a source of recreation, inspiration, and even food. But as **Dennice Scanlon** so eloquently points out in "Partners" (p. 22), her story about fishing Montana's Smith River with a valued friend, a river and the people you share it with can mean much more: "I thought about her far upstream and me trying to keep up, about her precise casts and no-nonsense flies, about the way she offered her friendship without terms or reservations. Then, I thought about the river and how it had a way of resolving everything—age, loneliness, loss, pain—before it flowed toward lesser parts of the Missouri and became a greater branch of memory." Scanlon is a writer, teacher, and flyfisher who resides in Anaconda.

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